



CONSTRUCTION IN WISCONSIN: AN INDUSTRY PERSPECTIVE



Foreword

This report provides a descriptive overview of the construction industry in Wisconsin. It is designed as an informational report for employers, Workforce Development Boards, Job Center partners, workers considering careers in the industry, and job seekers skilled in the construction trades. We hope you will find it useful. It is the first in a series of industry perspectives planned for release over the next year. Your feedback on this publication is welcome. Please contact us weekdays, 8:30am to 4:30pm, at (608) 267-2393.

The information reported here is for private sector firms only.

What is in the Construction Industry?

The construction industry is comprised of businesses that construct buildings or engineering projects, prepare sites for new construction, or subdivide land for sale as building sites. Because of substantial differences in the equipment, work force skills and other inputs required by the firms within this industry, it is divided into three subsectors. In Wisconsin, 98% of employment in construction occurs at privately held firms.

Subsectors of the Construction Industry

Building Construction

Building construction firms construct residential, commercial, industrial and other buildings. Production work for this subsector may be subcontracted (usually to specialty trade contractors). This subsector includes residential and nonresidential building construction.

Heavy Construction

Heavy construction consists of firms that construct entire engineering projects, and specialty trade contractors that produce specific components for these projects. This subsector includes utility system construction, land subdivision, highway, street and bridge construction, and other heavy construction (e.g. land drainage, golf courses, subways, etc.).

Specialty Trade Contractors

Specialty trade contractors perform specific activities in building construction but are not responsible for the entire project. This subsector includes foundation and exterior contractors (e.g. siding, roofing), building equipment contractors (e.g. plumbing, electrical), finishing contractors (e.g. drywall/insulation, flooring), and other specialty contractors (e.g., demolition, excavating, septic systems).

Note

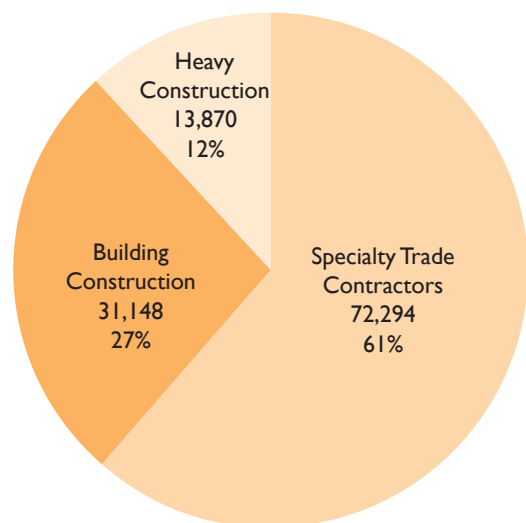
Quarterly Census of Employment and Wages (QCEW) and Local Employment Dynamics (LED) data presented in this publication are based on annual averages.

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September 2005. DWS -14695-P (N. 08/2005)

Construction in Wisconsin

Workers in Construction by Subsector, Wisconsin, 2003



Source: Local Employment Dynamics (LED) 2003, U.S. Census Bureau

Construction Summary Statistics, Wisconsin, 2003

Number of Workers	117,312
Change since 2001	-5%
Change, 1990-2001	43%
* Number of Firms ^a	14,163
Change since 2001	1.3%
Average Weekly Wage	\$795
Change since 2001	3%
Workers age 45+	30%
Change since 2001	3%
Male workers in industry ^b	87%
Change since 1990	-2%

(*) — Includes firms with unknown locations. Excludes firms with zero employment.

^a — Source: Quarterly Census of Employment and Wages (QCEW), 2001-2003, Bureau of Workforce Information (BWI), Division of Workforce Solutions (DWS), Wisconsin Department of Workforce Development (DWD)

^b — Source: LED, 1990-2003, U.S. Census Bureau

All other data — Source: LED, 2001-2003, U.S. Census Bureau

In 2003:

- The construction industry employed an average of 117,312 people per quarter. Employment ranged from a low of 105,800 in January through March to a high average of 129,461 for July, August and September.
- Specialty trade contractors employed 61% of the total construction workers. The heavy construction and building construction subsectors drive the employment growth of the specialty trades subsector.
- Firms with less than 20 employees per establishment dominated the construction industry.
- Nearly one-third of construction workers (30%) were 45 years of age or older, up 3% since 2001.
- Thirteen-percent of construction workers were females. This represents a 2% increase since 1990 for women in the industry.

Number of Construction Firms by Size Category, Wisconsin, 2003

Construction subsectors	Number of Employees			
	1-19	20-99	100-249	250+
Building Construction	3,508	247	21	8
Heavy Construction	591	126	18	7
Specialty Trades	8,850	736	41	10

Note: Includes firms with unknown locations. Excludes firms with zero employment.

Source: QCEW, 2003, BWI, DWS, DWD

Between 1990 and 2001, construction employment increased by 43%, although employment in the industry dipped 5% between 2001 and 2003.

Number and Percentage of Workers in Construction by Age, Wisconsin, 2003

	<19		19-24		25-34		35-44		45-54		55-64		65+		Total	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Female	469	3%	1,428	10%	3,008	20%	4,305	29%	3,265	22%	1,715	12%	548	4%	14,738	13%
Male	1,785	2	15,364	15	27,780	27	28,520	28	19,616	19	7,813	8	1,699	2	102,577	87
Total	2,254	2	16,792	14	30,788	26	32,825	28	22,881	20	9,528	8	2,247	2	117,315	100

Note: Totals vary due to rounding.

Source: LED, 2003, U.S. Census Bureau

Employment and Wages by Subsector

Construction Employment, Wisconsin, 2003

ALL CONSTRUCTION (117,312)

BUILDING CONSTRUCTION

(31,148)

Residential Building

15,504

Nonresidential Building

15,645

HEAVY CONSTRUCTION

(13,870)

Utility System

6,242

Land Subdivision

943

Highway and Bridge

5,694

Other Heavy

991

SPECIALTY TRADES

(72,294)

Foundation & Exterior

15,780

Building Equipment

32,709

Building Finishing

15,046

Other Specialty Trade

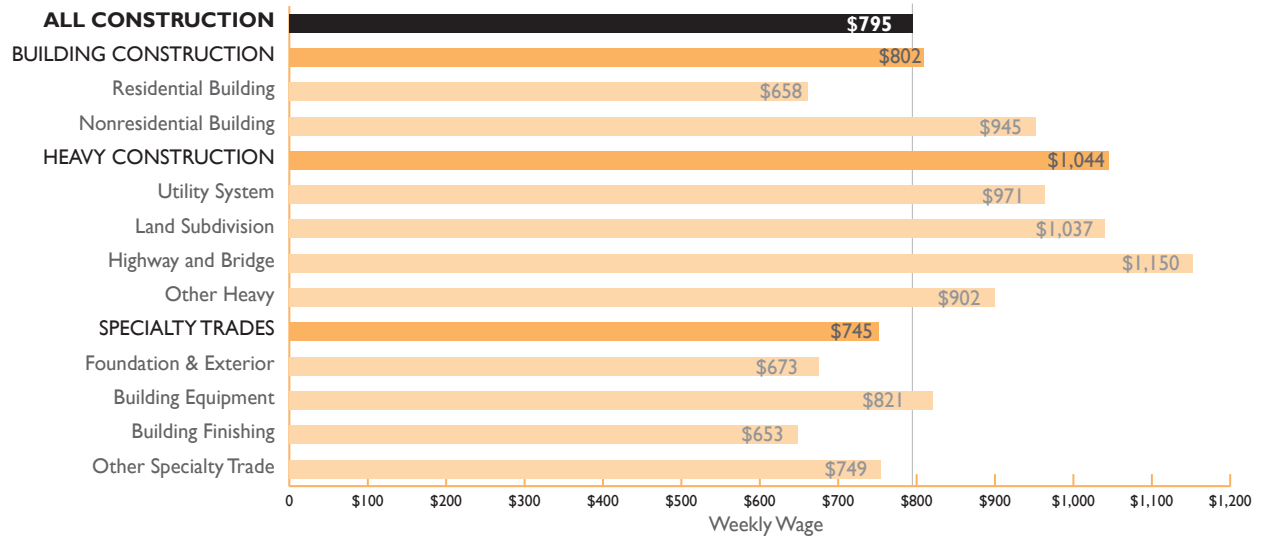
8,760

0 10,000 20,000 30,000 40,000
Employment

Source: LED, 2003, U.S. Census Bureau

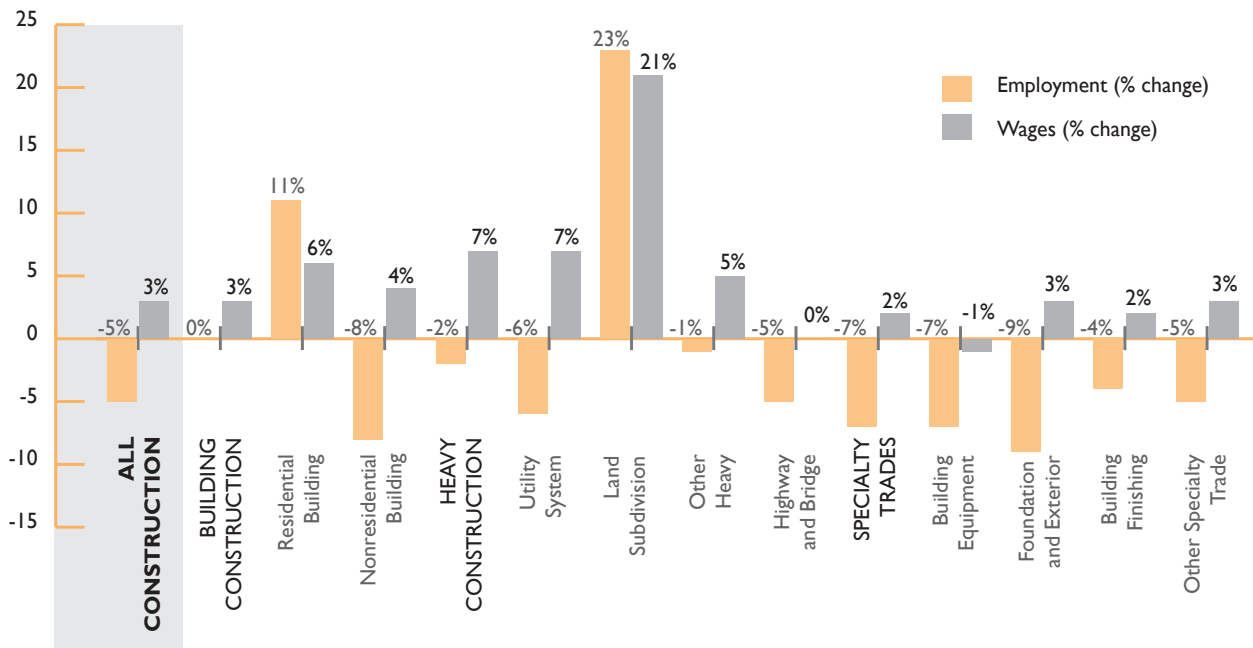
- In 2003, the building construction subsector was evenly distributed between residential and non-residential buildings. Between 2001 and 2003 non-residential building dropped by 8% and residential building increased by 11% in employment.
- Of the three major sectors of construction, specialty trade contractors employed the largest number of workers in 2003, but those workers averaged the lowest weekly wage, \$745.
- Average weekly wages vary among the sub-sectors of construction employment, ranging from \$653 per week in the building finishing component of specialty trades to \$1,150 per week in the highway and bridge component of heavy construction.

Wisconsin Average Weekly Wage in Construction, 2003



Source: LED, 2003, U.S. Census Bureau

Construction Employment and Wages, Wisconsin, 2001-2003



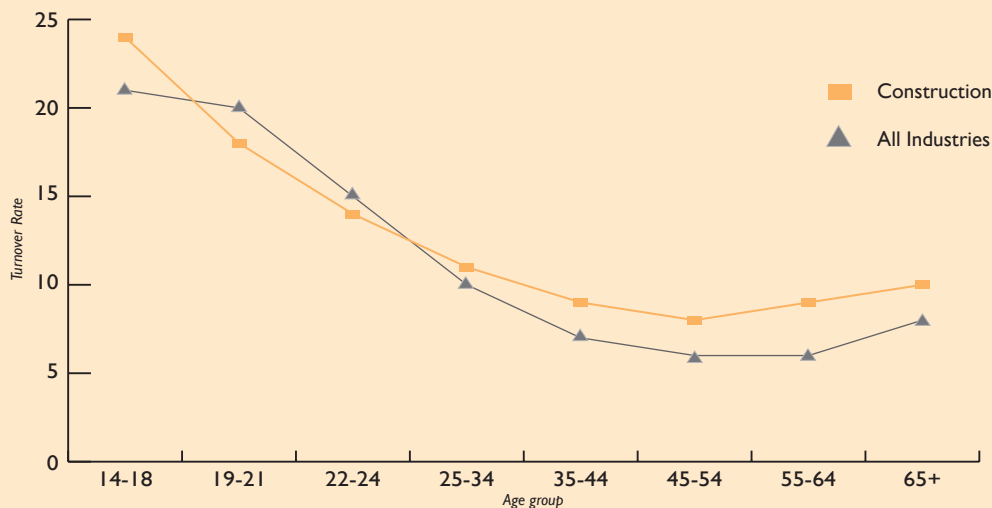
Source: LED 2001-2003, U.S. Census Bureau

- During the latest recession, construction employment declined five percent, but job growth has resumed since then.
- Two sectors retained employment growth during the 2001 to 2003 period, land subdivision with 23 percent growth and residential construction with 11 percent growth.
- Wages in most sectors increased during the two-year period. The average weekly wage for all construction workers grew by three percent. The land subdivision sector wages grew by 21 percent, and the residential building wages grew by six percent.

Turnover Rates

- Construction workers, except those younger than 25, had higher turnover rates than did similarly-aged workers in all industries.
- The higher turnover rates for older construction workers are likely due to the physical demands of construction work and to the high injury rate for the construction industry.

Turnover Rates by Age, Construction & All Private Industries Compared, Wisconsin, 2003



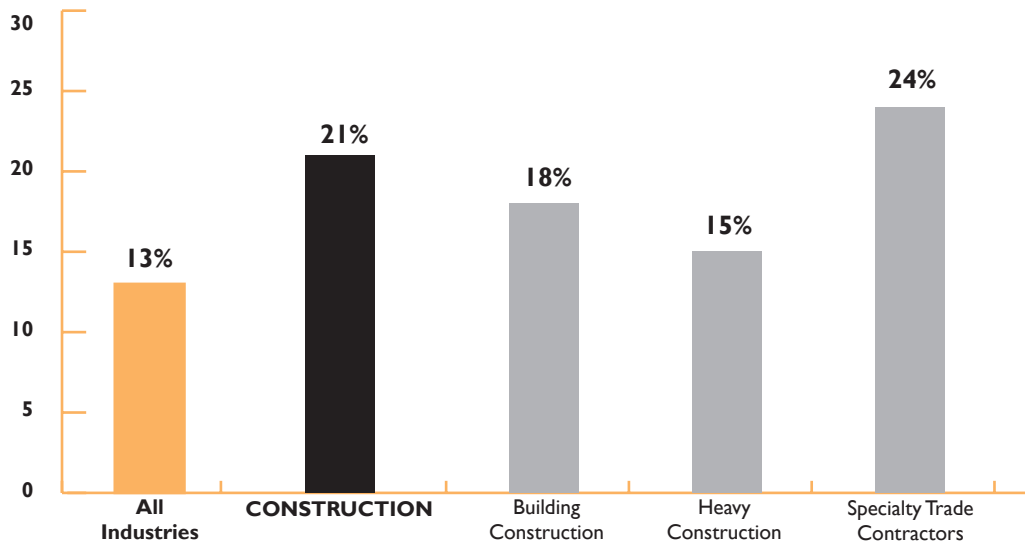
Source: LED, 2003, U.S. Census Bureau

Note: Turnover is the rate of employment change during the year relative to the overall average employment during the year.

It is calculated as: the average number of new hires and separations in the industry relative to average employment in the industry.

Growth in the Future

Projected Change in Number of Workers in Construction Compared to All Industries, Wisconsin
(Projected to 2012)



Source: Wisconsin Projections, 2002-2012, Office of Economic Advisors (OEA), Wisconsin Department of Workforce Development (DWD)

- Projected employment growth for all industries is pegged at 13.3 percent from 2002 through 2012. The expected increase for construction employment during that same ten years amounts to 21.4 percent, a growth of over 124,000 jobs.
- Among all construction subsectors, the specialty trade contractor component is expected to grow at the highest rate.
- The construction occupations projected to grow the fastest are carpenters, construction laborers, electricians, and plumbers, pipefitters and steamfitters.

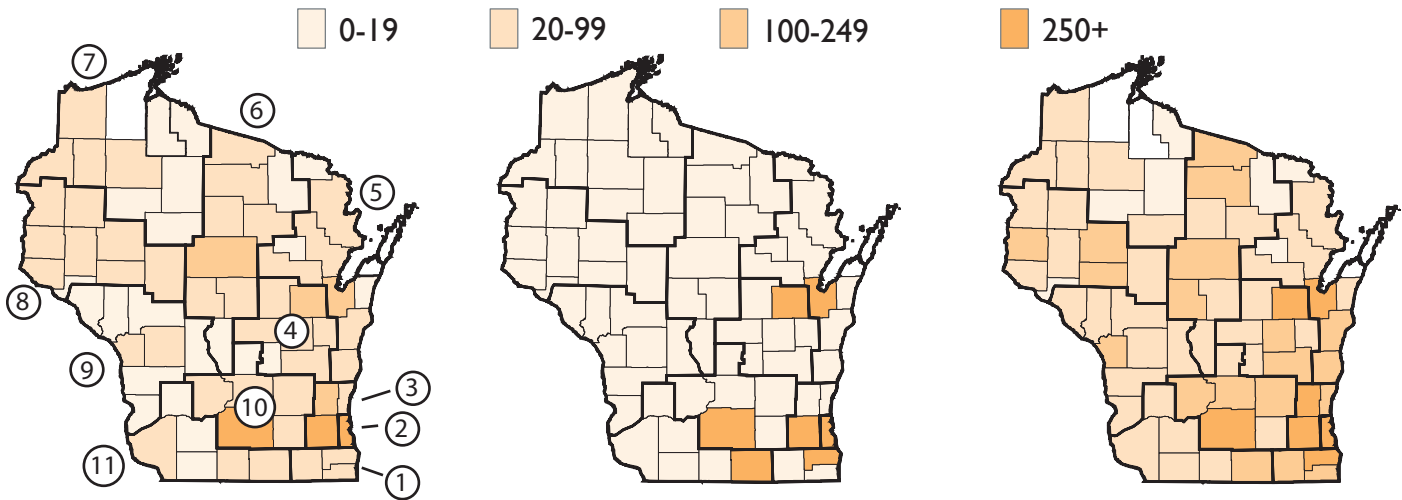
Top 5 Projected Occupations, Wisconsin, 2012
(Sorted by 2012 Projected Employment)

	2002 Employment	2012 Projected Employment	Total % Change 2002-2012
Construction of Buildings			
Carpenters	11,260	13,800	23%
Construction Laborers	4,110	4,830	18
First-Line Sups/Mgrs of Const.Trades and Extraction Workers	2,590	3,070	19
Brickmasons and Blockmasons	1,250	1,470	18
Cement Masons and Concrete Finishers	850	1,090	28
Heavy and Civil Engineering Construction			
Construction Laborers	2,570	2,990	16
Operating Engineers & Other Construction Equip. Operators	2,610	2,980	14
First-Line Sups/Mgrs of Const.Trades and Extraction Workers	1,020	1,200	18
Truck Drivers, Heavy and Tractor-Trailer	710	820	15
Earth Drillers, Except Oil and Gas	330	400	21
Specialty Trade Contractors			
Electricians	8,580	11,290	32
Plumbers, Pipefitters, and Steamfitters	7,800	10,080	29
Carpenters	6,760	8,240	22
Construction Laborers	4,580	5,680	24
Sheet Metal Workers	3,640	4,650	28

Source: Wisconsin Projections, 2002-2012, OEA, DWD

Wisconsin's Regional Outlook

Number of Firms by County, 2003



Building Construction

Heavy Construction

Specialty Trades

(Workforce Development Areas (WDAs) are designated by dark lines)

Note: See table below for WDA names

Source: QCEW, 2003, BWI, DWS, DWD

Number of Construction Firms

- Throughout the state, heavy construction had the fewest number of firms, while specialty trade contractors had the most.
- Construction firms are most heavily concentrated in two WDAs in Wisconsin:
 - 1) Waukesha, Ozaukee, and Washington counties (W-O-W area).
 - 2) The six-county South Central area which includes the Madison metropolitan area.

Number of Firms by Employment Size, WDAs, 2003

WDA	Name	Building Construction				Heavy Construction				Specialty Trades			
		1-19	20-99	100-249	250+	1-19	20-99	100-249	250+	1-19	20-99	100-249	250+
250+													
1	Southeast	216	15	1	0	39	7	2	0	668	42	2	0
2	Milwaukee	229	24	2	0	37	13	0	0	732	94	10	3
3	W-O-W	446	38	4	0	90	17	3	2	1,421	143	7	2
4	Fox Valley	395	22	2	4	63	11	1	0	972	98	7	3
5	Bay Area	401	37	2	0	66	16	1	0	1,089	76	6	2
6	North Central	400	22	1	0	54	7	2	0	723	39	1	1
7	Northwest	183	7	0	0	34	4	0	0	316	15	0	0
8	West Central	341	15	1	0	47	6	2	0	700	51	1	0
9	Western	173	9	1	0	23	5	0	2	426	25	0	0
10	South Central	519	43	6	2	76	29	5	3	1,269	124	7	0

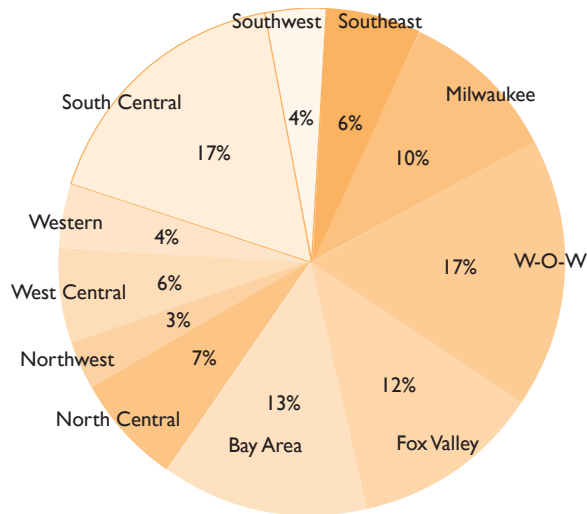
Note: Totals may vary from statewide due to rounding. Firm counts exclude firms with unknown locations and firms with zero employment.

Source: QCEW, 2003, BWI, DWS, DWD

Distribution of Employment and Wages

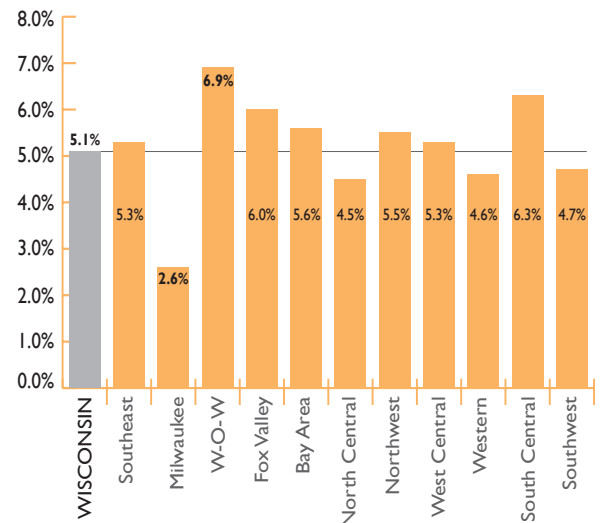
- Firms located in the W-O-W area together with firms in the South Central area of the state employed over one-third of Wisconsin's construction workers.
- Construction firms in northeast Wisconsin (the Bay Area) along with those in the Fox Valley area account for a quarter of the state's construction employment.
- Milwaukee county establishments employ only 10 percent of Wisconsin's construction workers, though they pay the highest average wage, \$893 per week.
- Construction, as a percent of total employment in the Milwaukee area, is significantly lower than any of the other WDAs.
- The W-O-W area and the South Central area paid higher-than-average wages for construction work, \$884 and \$844 per week respectively.
- The Northwest WDA had the lowest percentage of total Wisconsin construction employment (3%), and the lowest average weekly wage in 2003.

Distribution of Construction Workers by WDA, Wisconsin, 2003



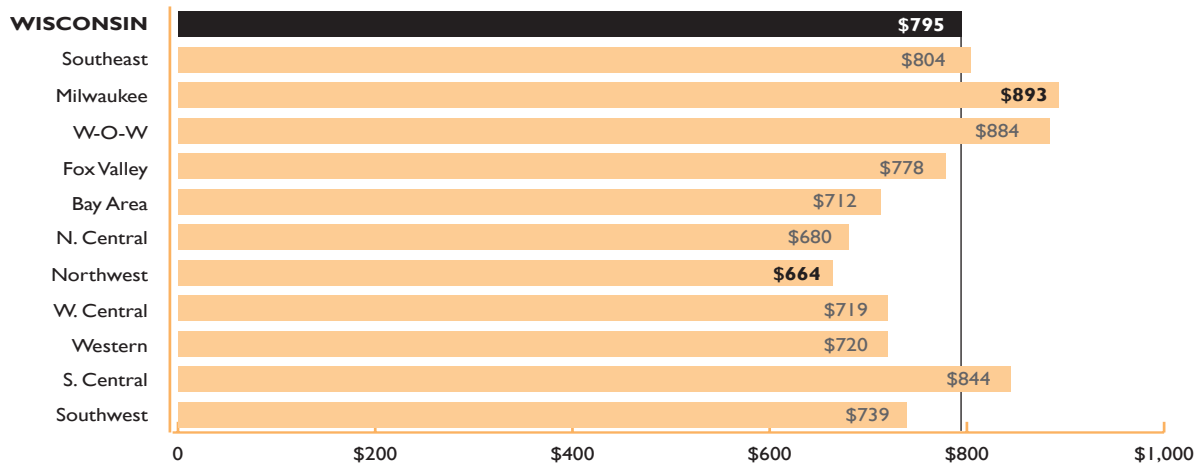
Source: LED, 2003, U.S. Census Bureau

Construction as Share of Employment by WDA, Wisconsin, 2003



Source: LED, 2003, U.S. Census Bureau

Average Weekly Wage of Workers in Construction by WDA, Wisconsin, 2003

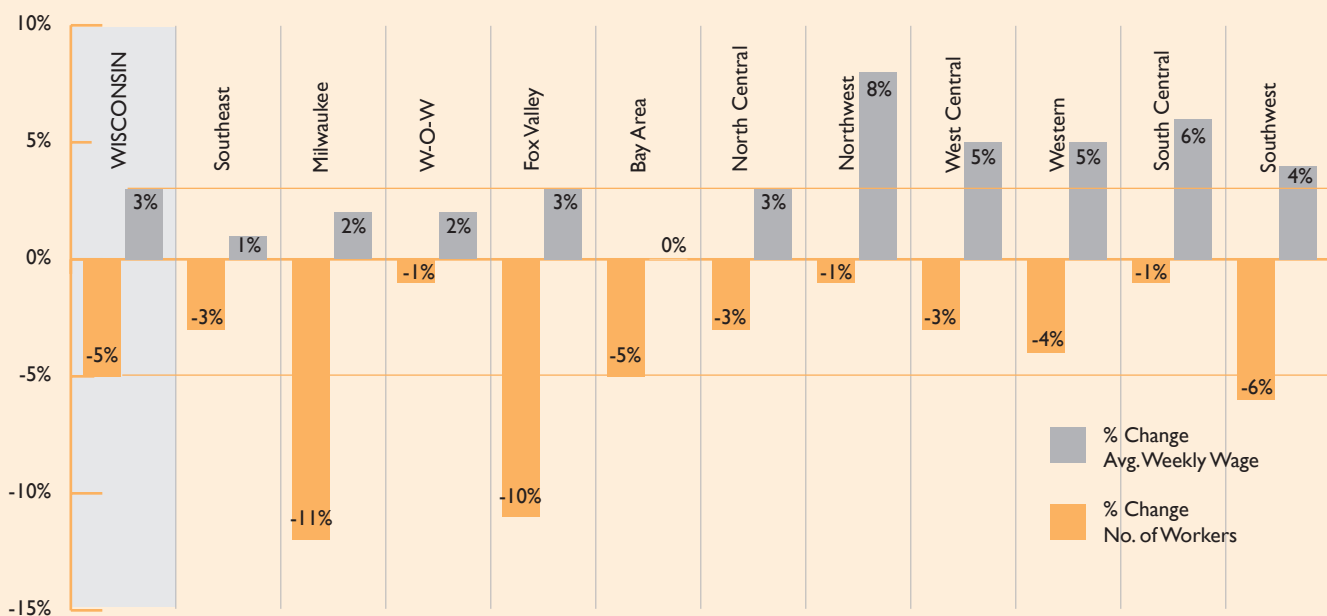


Source: LED, 2003, U.S. Census Bureau

Employment and Wage Changes

- Between 2001 and 2003, the West Central area, including St. Croix county which is near Minneapolis-St. Paul, had the fastest growth in the number of firms.
- During this time, Milwaukee county and the Fox Valley area had the greatest losses in construction employment of any state area. Both were also low in their weekly wage increases.
- The Northwest WDA experienced a relatively low loss of employment (-1%), and had a higher-than-statewide-average increase in average weekly wages over the two-year period (8%). The number of construction firms in the area increased 3%, which is also higher than the statewide average increase during the same period.

Percent Change in Employment and Wages in Construction by WDA, Wisconsin, 2001-2003



Source: LED 2001-2003, U.S. Census Bureau

Employment and Wages in the Construction Industry by WDA, Wisconsin, 2001 and 2003

WDA Name	No. of Workers*		% Change 2001-2003	No. of Firms**		% Change 2001-2003	Avg Wkly Wage		% Change 2001-2003
	2001	2003		2001	2003		2001	2003	
Southeast	7,732	7,483	-3%	1,006	995	-1%	\$793	\$804	1%
Milwaukee	13,429	11,778	-12	1,178	1,144	-3	877	893	2
W-O-W	20,474	20,243	-1	2,139	2,172	2	866	884	2
Fox Valley	16,389	14,643	-11	1,571	1,576	0	753	778	3
Bay Area*	15,520	14,668	-5	1,684	1,698	1	714	712	0
North Central	8,149	7,932	-3	1,223	1,250	2	659	680	3
Northwest	3,013	2,986	-1	544	559	3	614	664	8
West Central	7,695	7,489	-3	1,094	1,165	6	686	719	5
Western	5,103	4,879	-4	670	667	0	682	720	5
South Central	20,560	20,456	-1	2,000	2,083	4	797	844	6
Southwest	5,086	4,756	-6	698	717	3	714	739	4
Wisconsin***	123,150	117,313	-5	13,807	14,026	1.6	772	795	3

(*) — Menominee County in Bay Area WDA suppressed employment in some quarters.

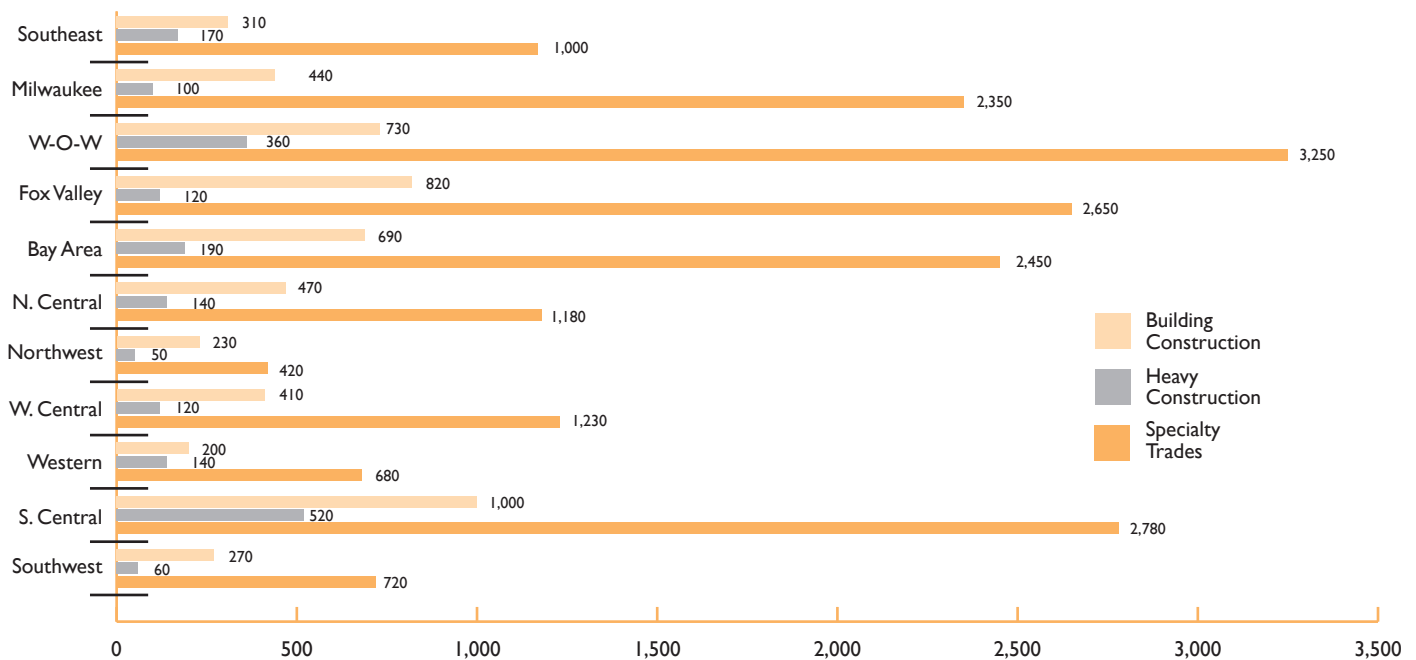
(**) — WDA firm counts exclude firms with unknown locations.

(***) — Totals may vary from statewide due to rounding.

Sources: LED 2001-2003, U.S. Census Bureau; and QCEW, 2001-2003, BLS, DWS, DWD

Employment Growth Projections

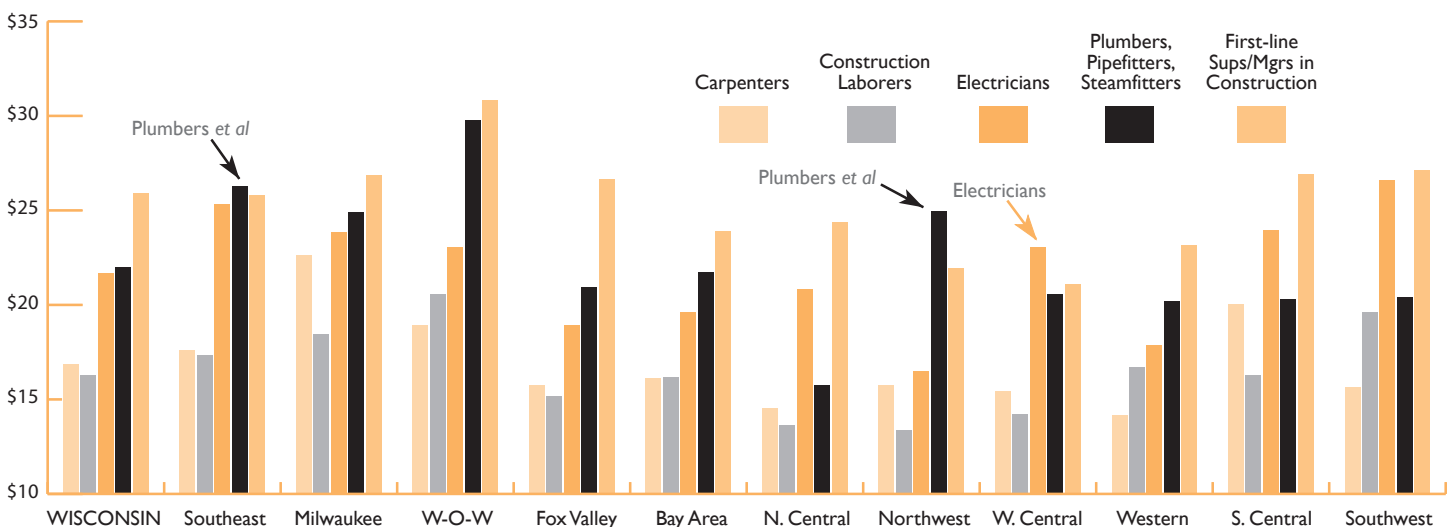
Projected Growth in Construction Employment by WDA, Wisconsin, 2002-2012



Source: Wisconsin Projections, 2002-2012, OEA, DWD

- The largest employment increases during the 2002 to 2012 projection period are expected to be in the specialty trades subsector.
- Within specialty trades, the three-county W-O-W area around Milwaukee are projected to lead employment growth with 3,250 new jobs.
- The South Central area, which includes Madison, is expected to lead in building construction job growth with an increase of 1,000 new jobs.
- In 2003, there were exceptionally high hourly wages for plumbers, pipefitters, and steamfitters in the Southeast and Northwest areas, and for electricians in the West Central area. (Wages for the listed occupations span all industries and are not specific to construction).

2003 Median Hourly Wage by WDA for Projected Top 5 Construction Occupations, WDAs, 2002-2012



Source: Wisconsin Projections, 2002-2012, OEA, DWD

Other Resources on Construction



WORKnet website:

<http://worknet.wisconsin.gov/worknet/>

Wisconsin's Workforce and Labor Market Information System.

State Bureau of Apprenticeship Standards:

<http://www.dwd.state.wi.us/dws/appr/default.htm>

Details of apprenticeship regulations, informational publications and answers to Frequently Asked Questions (FAQs).

Apprenticeship Information by Area:

<http://www.dwd.state.wi.us/dws/appr/contacts.htm>

Contact field representatives by Wisconsin district.

Labor Market Analysts:

http://dwd.wisconsin.gov/oea/contact_us.htm

Contact Labor Market Analysts by Wisconsin district.

Office of Economic Advisors:

<http://www.dwd.state.wi.us/oea/>

Provide help with interpretation of Labor Market data.

U.S. Bureau of Labor Statistics:

<http://www.bls.gov/>

Fact finding agency for the nation regarding labor economics and statistics.

U. S. Census Bureau:

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